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Amendments to the Specification:

Please enter the following amendments to the specification. No prohibited new matter is being submitted. Subject matter from the parent application, incorporated by reference, is being inserted in lieu of text included in error.

First, in the specification, please make the following changes to the paragraph at page 2, lines 22-23:

Hardware security may be employed. For example, a security code may be programmed into a hardware device, such as EEPROM on a frame grabber, or a hardware dongle which plugs into a parallel port. The machine vision software would check whether the required security code is present before executing a protected algorithm.

Second, in the specification, please delete all the paragraphs starting at page 3, line 1 and ending at page 4, line 24. (per 37 CFR 1.121(b)(2)(iv), a marked up version is not being provided for these paragraphs).

Third, please delete the paragraph at page 5, lines 1-5. (per 37 CFR 1.121(b)(2)(iv), a marked up version is not being provided for this paragraph).

Fourth, in the specification, please insert the following new paragraphs at the beginning (i.e., before line 1) of page 3. (per 37 CFR 1.121(b)(2)(iii), these are being submitted in clean form).

Dedicated software security may be employed. For example, protected software may be registered on a specific computer that is associated with a unique identifier on the computer, such as a hard disk serial number or an Ethernet address. Any attempt to copy the protected software to another computer would fail if that computer does not have the same unique identifier.

Floating licenses may be employed. For example, licenses are granted from a central computer on a network. Other computers on the network must request and be granted a license in order to run the protected software. When the computers are finished, they typically release the license so that other computers can use the license. A fixed number of licenses are issued, so if all the licenses are being utilized, the computer requesting a license must wait until the license is freed by another computer.

These security methods present numerous problems that hinder the use of machine vision. The hardware and dedicated security methods are awkward to manage, and do not readily permit sharing of licenses among multiple computers. Floating licenses are subject to problems if the license server or any computer with a license crashes or goes off the network, or if the network itself ceases operation. Also, floating licenses do not readily handle inconsistent loads, i.e., periods of relative inactivity followed by periods when there are more requests for licenses than there are licenses. To accommodate these inconsistent loads, users must purchase additional licenses which are unused for significant portions of time, or queue up license requests.

Additionally, these security methods make it difficult for users of machine vision software to efficiently maintain the latest version of software because the user must explicitly install the software on each computer that needs to run the latest version of software. This is often difficult once a computer has been installed at a manufacturing facility. It may also be difficult to install bug fixes, patches and service releases which fix problems with older versions

of the software. Customers must also track which versions of software and patches they have installed on each computer. In addition, computers using hardware or dedicated software security may need to update their licenses in the field if the new software requires additional license permission in order to run.

SUMMARY

Per one embodiment herein, a method is provided. A user selects, at a first computer, at least one vision tool. The vision tool is remotely located from the first computer. In response to the selection by the user of the at least one vision tool, data is sent including image data, an indication of the vision tool that was selected by the user, and at least one vision tool parameter corresponding to the vision tool. The data is sent, via a communications network, from the first computer to a remotely located second computer that includes the vision tool. The image data and the at least one vision tool parameter are validated, at the remotely located second computer. The image data is processed at the remotely located second computer using the vision tool to produce a result. The result is sent to a designated location.

Fifth, in the specification, please insert the following new paragraphs after line 22 of page 5. (per 37 CFR 1.121(b)(2)(iii), these are being submitted in clean form).

In embodiments herein, features are provided to permit users to pay for only the machine vision software that they need, when they need it, without limitations of licensing schemes. Features are also disclosed to facilitate customers' access to the latest version of machine vision software, without having to install the update on every computer. System and method features are also disclosed to allow users to test machine vision software, without having to purchase or license the software, in order to determine whether the software meets their requirements.

Improved systems and methods, and subsystems and submethods, are provided to achieve one or more of these objects. Others will become apparent from the description that follows.

The present invention, in one variation, is directed to a system or method for performing machine vision operations on a remotely accessed computer. A first computer acquires image data and transfers it to a remotely located second computer via network. The first computer specifies, by communicating to the second computer over the network, information identifying selected vision software comprising a computer vision program or one or more specific vision tools for the second computer to run on the acquired image data. The first computer also sends to the second computer parameters needed by the second computer to run the selected vision software. The second computer runs the selected vision software on the transferred image to obtain a result. The result is sent from the second computer to a designated location.